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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,951	06/27/2003	Hisayoshi Ohba	1095.1279	4838
21171	7590	02/10/2005		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER WHITMORE, STACY	
			ART UNIT 2825	PAPER NUMBER

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/606,951

Applicant(s)

OHBA ET AL.

Examiner

Stacy A. Whitmore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-12 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 6/27/03.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1- 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al. (US Patent Application Publication 2003/0229875).

2. As for claims 1, and 10-12, Smith discloses the invention as claimed, including method, program, computer medium, and apparatus comprising steps for:

dividing a layout pattern for a layout layer in a semiconductor device into divided areas [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28];

inserting a dummy pattern between design patterns in the divided areas [];

calculating the density of the dummy pattern and the design patterns in each of the divided areas [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28]; and

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changing the pattern rules for the dummy pattern so that density will be desired values [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

3. As for claim 2, Smith discloses the design patterns are wiring patterns and the layout layer is a wiring layer [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

4. As for claim 3, Smith discloses division specification information regarding size of the divided areas is accepted [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28]; and

The layout pattern is divided into divided areas having the size of which is specified by the division specification information [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

5. As for claim 4, Smith discloses generated dummy specification information regarding the specification information of the divided area in which the dummy pattern is to be inserted is accepted [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28]; and

The dummy pattern is inserted between design patterns in the divide area specified by the generated dummy specification information [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

6. As for claim 5, Smith discloses dummy rule information regarding pattern rules for the dummy pattern inserted between the design patterns is accepted [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28]; and

The dummy pattern having the pattern rules for which are based on the dummy rule information is inserted between the design patterns [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

7. As for claim 6, Smith discloses wherein the dummy pattern is inserted between design patterns in an area including the divided area and a divided area adjacent to the divided area [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

8. As for claim 7, Smith discloses wherein if the density does not match the desired value, the density of the dummy pattern and the design patterns in an area obtained by enlarging the divided area where the density was calculated is calculated [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

9. As for claim 8, Smith discloses wherein if the density does not match the desired values, the density of the dummy pattern and the design patterns in an area including the divided area where the density was calculated and a divided area adjacent the divided area is calculated [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

10. As for claim 9, Smith discloses the density of design patterns on the entire layout pattern is calculated [pg. 3, paragraph 0026, see also figs. 7, 9a, 13a, 13c, 16, especially element 34-1, 18, 23, 24, 28].

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

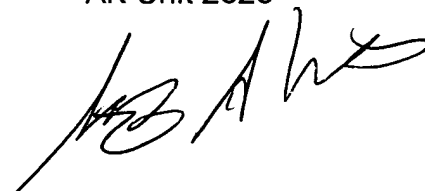
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore

Primary Examiner

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A handwritten signature in black ink, appearing to read 'Stacy A. Whitmore', written over the printed name and title.

SAW